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09/757,046	01/08/2001	Daniel Frederick Gruhl	ARC9-2000-0128-US1	6388

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EXAMINER	
PHILLIPS, HASSAN A	

ART UNIT	PAPER NUMBER
2151	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/757,046	Applicant(s) GRUHL, DANIEL FREDERICK	
	Examiner Hassan Phillips	Art Unit 2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 January 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-26, have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-5, 7,8, 24, are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (hereinafter Chen), U.S. patent 6,507,856, in view of Leaf, U.S. patent 5,754,772.

3. In considering claim 1, Chen teaches a computer system, comprising:

   a) general purpose transmitting computers, the computers including logic for undertaking method acts to transfer data to a general purpose receiving computer, in communication with the transmitting computers, (col. 1, lines 35-48);

The method acts undertaken by the logic including:

b) accessing at least one data tree and generating a message including plural elements, each element being a node element representative of a respective node of the tree or a leaf element representative of a respective leaf of the tree, (col. 3, lines 65-67, col. 4, lines 1-11, also see Fig.'s 1-3).

Although Chen teaches substantial features of the claimed invention, Chen does not explicitly disclose:

a) a size value associated with the leaves or nodes.

Nevertheless, in a similar field of endeavor Leaf discloses a computer system comprising:

a) a size value associated with data contained in a data structure, (col. 7, lines 45-67, col. 8, lines 1-20, also see Fig. 6).

Given the teachings of Leaf, it would have been apparent to one of ordinary skill in the art to modify the teachings of Chen to show each node element having an associated size value indicating a number of leaves or nodes depending form the respective node, and each leaf element having an associated size value indicating a size of a value in the respective leaf. Doing so would have provided an efficient means for allocating memory for the leaves and nodes, Leaf, col. 11, lines 25-34.

4. In considering claim 2, Chen teaches a computer system wherein the method acts undertaken by the logic further include transferring the message from the transmitting computer to the receiving computer. See col. 1, lines 35-48.

5. In considering claim 3, Chen further teaches each element including a name representative of the respective node. See col. 1, lines 49-65.

6. In considering claim 4, the combined method of Chen and Leaf as taught in claims 3 and 1 provide a means for a name size, indicating a size of the associated name, to precede the name. The motivation for combining Chen and Leaf would be the same as that taught in consideration of claim 1.

7. In considering claim 5, it is implicit in the method taught by Chen that each element includes one of two data types, node and leaf. See col. 3, lines 65-67, col. 4, lines 1-11. Also see Fig. 3.

8. In considering claim 7, Chen teaches the generating act undertaken by the logic being accomplished by a depth first traversal of the tree. See col. 4, lines 40-46.

9. In considering claim 8, Chen further teaches each leaf element further including a value, representing a value of the associated leaf. See col. 7, lines 20-35.

10. In considering claim 24, Chen further teaches the message arranged in accordance with a depth first traversal of the tree to represent tree structure information. See col. 5, lines 15-31.

11. Claims 6, 9-15, 25, are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen, in view of Leaf, and further in view of Snider, U.S. patent 5,991,893.

12. In considering claim 6, although the combined methods of Chen and Leaf teaches substantial features of the claimed invention, they fail to expressly disclose:

a) a remote procedure call (RPC).

Nevertheless, RPC's were well known at the time of the present invention. This is exemplified in a similar field of endeavor, where Snider discloses a computer system comprising:

a) implementation of an RPC over the Internet, (col. 5, lines 60-65).

Given the teachings of Snider, it would have been obvious to one of ordinary skill in the art to modify the teachings of Chen and Leaf to show the method acts undertaken by the logic to be executed in response to an RPC over the Internet. Doing so would have ensured data structure integrity, Snider, col. 5, lines 53-59.

13. In considering claim 9, Chen teaches a computer-implemented data transfer protocol, comprising:

a) traversing a data tree, (col. 4, lines 40-45);

b) generating message elements representing nodes and leaves in the tree, (col. 3, lines 65-67, col. 4, lines 1-11, also see Fig.'s 1-3).

Although Chen teaches substantial features of the claimed invention, Chen does not explicitly disclose:

a) a size value associated with the message.

Nevertheless, in a similar field of endeavor Leaf discloses a computer system comprising:

a) a size value associated with data contained in a data structure, (col. 7, lines 45-67, col. 8, lines 1-20, also see Fig. 6).

Given the teachings of Leaf, it would have been apparent to one of ordinary skill in the art to modify the teachings of Chen to show each message having an associated size. Doing so would have provided an efficient means for allocating memory for the message, Leaf, col. 11, lines 25-34.

Although the combined methods of Chen and Leaf teaches substantial features of the claimed invention, they fail to expressly disclose:

a) a remote procedure call (RPC).

Nevertheless, RPC's were well known at the time of the present invention. This is exemplified in a similar field of endeavor, where Snider discloses a computer system comprising:

a) implementation of an RPC over the Internet, (col. 5, lines 60-65).

Given the teachings of Snider, it would have been obvious to one of ordinary skill in the art to modify the teachings of Chen and Leaf to show transmitting the message elements to affect at least one RPC. Doing so would have ensured data structure integrity, Snider, col. 5, lines 53-59.

14. In considering claim 10, given the teachings of Leaf, it would have been apparent to one of ordinary skill in the art to modify the teachings of Chen, as taught in claim 9, to show each node element having an associated size value indicating a number of leaves or nodes depending form the respective node, and each leaf element having an associated size value indicating a size of a value in the respective leaf. This would have provided an efficient means for allocating memory for the leaves and nodes, Leaf, col. 11, lines 25-34.

15. In considering claim 11, Chen further teaches each element including a name representative of the respective node. See col. 1, lines 49-65.

16. In considering claim 12, the combined method of Chen and Leaf as taught in claims 11 and 9 provide a means for a name size, indicating a size of the associated name, to precede the name. The motivation for combining Chen and Leaf would be the same as that taught in consideration of claim 9.

17. In considering claim 13, it is implicit in the method taught by Chen that each element includes one of two data types, node and leaf. See col. 3, lines 65-67, col. 4, lines 1-11. Also see Fig. 3.

18. In considering claim 14, Chen teaches the generating act undertaken by the logic being accomplished by a depth first traversal of the tree. See col. 4, lines 40-46.

19. In considering claim 15, Chen further teaches each leaf element further including a value, representing a value of the associated leaf. See col. 7, lines 20-35.

20. In considering claim 25, Chen further teaches the message arranged in accordance with a depth first traversal of the tree to represent tree structure information. See col. 5, lines 15-31.

21. Claims 16-23, 26, are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen, in view of Leaf, and further in view of Mishra, U.S. patent 6,345,315.

22. In considering claim 16, Chen teaches a computer program device comprising:

a) a computer program storage device readable by a digital processing apparatus, and a program on the program storage device including instructions executable by a digital processing apparatus for performing method acts for transferring data representative of a tree structure over a wide area computer network, (col. 2, lines 29-42).

Although Chen teaches substantial features of the claimed invention, Chen does not explicitly disclose:

a) a size value associated with a characteristic of the tree.

Nevertheless, in a similar field of endeavor Leaf discloses a computer system comprising:

a) a size value associated with data contained in a data structure, (col. 7, lines 45-67, col. 8, lines 1-20, also see Fig. 6).

Given the teachings of Leaf, it would have been apparent to one of ordinary skill in the art to modify the teachings of Chen to show a size of at least one characteristic of the data tree. Doing so would have provided an efficient means for allocating memory for the characteristic of the data tree, Leaf, col. 11, lines 25-34.

Although the combined methods of Chen and Leaf teaches substantial features of the claimed invention, they fail to expressly disclose:

a) generating a platform independent message.

Nevertheless, platform independent messages were well known at the time of the present invention. This is exemplified in a similar field of endeavor, where Mishra discloses a computer program device comprising:

a) logic means for generating a platform independent message representing a logical frame, (col. 7, lines 17-22).

Given the teachings of Mishra, it would have been obvious to one of ordinary skill in the art to modify the teachings of Chen and Leaf to show that platform independent messages are being generated in the messages that represent a data tree. This would show that the combined methods, taught by Chen and Leaf, overcome the common problem of software incompatibility, Mishra, col. 2, lines 41-49.

23. In considering claim 17, Chen teaches the tree including at least one node and at least one leaf. See Fig. 3. Also, given the teachings of Leaf, it would have been apparent to one of ordinary skill in the art to modify the teachings of Chen, as taught in claim 16, to show the characteristic being a number of tree elements under a node, or a size of a value of a leaf. This would have provided an efficient means for allocating memory for the leaves and nodes, Leaf, col. 11, lines 25-34.

24. In considering claim 18, Chen teaches a computer device wherein the means for generating undertakes a depth first traversal of the tree. See col. 4, lines 40-46.

25. In considering claim 19, Chen teaches a computer program device comprising logic means for transferring the message from a transmitting computer to a receiving computer. See col. 1, lines 35-48.

26. In considering claim 20, Chen further teaches at least one node element representative of a respective node and at least one leaf element representative of a respective leaf, each element including a name representative of the respective node. See col. 1, lines 49-65.

27. In considering claim 21, the combined method of Chen and Leaf as taught in claims 20 and 16 provide a means for a name size, indicating a size of the associated

name, to precede the name. The motivation for combining Chen and Leaf would be the same as that taught in consideration of claim 16.

28. In considering claim 22, Chen teaches that the message includes at least one node element representative of a respective node and at least one leaf element representative of a respective leaf. Further it is implicit in the method taught by Chen each element includes one of two data types, node and leaf. See col. 3, lines 65-67, col. 4, lines 1-11. Also see Fig. 3.

29. In considering claim 23, Chen further teaches at least one node element representative of a respective node and at least one leaf element representative of a respective leaf, each element including a value representative of a value of the associated leaf. See col. 1, lines 49-65.

30. In considering claim 26, Chen further teaches the message arranged in accordance with a depth first traversal of the tree to represent tree structure information. See col. 5, lines 15-31.

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chen et al., U.S. patent 6,507,856 discloses a system for exchanging messages that include plural elements over a network.

Leaf, U.S. patent 5,754,772 discloses associating a size with data in order to allocate memory for a data structure.

Snider, U.S. patent 5,991,893 discloses an RPC protocol for transmitting messages over the Internet.

Mishra, U.S. patent 6,345,315 discloses a method for platform independent communication between client and server pairs.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hassan Phillips whose telephone number is (703) 305-8760. The examiner can normally be reached on M-F 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (703) 305-4792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FRANTZ B. JEAN
PRIMARY EXAMINER

HP
5/17/04